



The Greening of South Carolina

As a result of the efforts of the South Carolina Energy Office and its allies, the greening of South Carolina is taking place in significant fashion.

The latest projects and results include the formal execution of Endorser Agreements for the LEED (Leadership in Energy and Environmental Design) Program by the Appalachian Council of Governments and the South Carolina Chamber of Commerce – the first such results achieved by any state in America. Additionally, the SC Chapter of the United States Green Building Council (USGBC) is nearing legal formation, and SCEO has taken a leadership role in implementing the EarthCraft House pilot project, in partnership with the Greenville and Charleston Home Builders Associations (HBA) and Southface Energy Institute, in Greenville and Charleston. SCEO is also now an official Partner of ENERGY STAR, a national program and rating system for equipment and products developed by the EPA. All programs and efforts are dedicated to energy and environmental conservation.



South Carolina's first EarthCraft House - energy efficient and environmentally sensitive - is in Greenville. EarthCraft is a program developed by the Atlanta Homebuilders, and marketed by Southface. Several more are under construction in Greenville.

To date, in 2004, the number of LEED accredited professionals in South Carolina has grown from 39 to 124, a three-fold increase in the number certified. The LEED and EarthCraft House programs represent design and construction practices that significantly reduce the negative impact of buildings on the environment and occupants. They also put into place systems such as ENERGY STAR which promote energy efficiency. And, the SCEO is promoting and assisting with the implementation of solar water heating systems in the EarthCraft House projects.

In the coming weeks and months, a number of LEED buildings and EarthCraft Houses, all with ENERGY STAR equipment, will be operational. One of them, the West Quad Dormitory at the University of South Carolina, part of the Sustainable Universities Initiative, welcomed new students this fall and held its grand opening ceremony in November. Additionally, SCEO continues to assist in workshops to educate architects, engineers, contractors and codes officials on LEED and the EarthCraft House. Our partner, Upstate Forever will showcase EarthCraft homes as a major feature of the Southern Home and Garden

Show, March 3-6, 2005. For more information on LEED and other green building initiatives, please contact Sonny DuBose at (803) 737-9852 or sdubose@gs.sc.gov, or visit SCEO's website at www.energy.sc.gov.

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The 172,000-square-foot West Quad dormitory at USC includes three four-story buildings with the latest technology and environmental features for conserving water and energy and creating a healthier, greener environment for the 500 undergraduate students who call it home.

Notes From the Director

John F. Clark



Because South Carolina produces no fossil fuels (coal, oil, or natural gas) and no uranium (the feedstock for nuclear power), it is vital to the long-range economic and environmental well-being of our state that we do a better job of developing our utilization of locally-available renewable energy resources.

The South Carolina Energy Office is pushing several initiatives to do just that. Our biggest success thus far has been recovery of landfill gas for energy. Several years ago, the SCEO partnered with the US Environmental Protection Agency to start a Landfill Methane Outreach Program (LMOP) in South Carolina. Through LMOP, we were able to identify candidate landfills, as well as possible end-users.

In 2001, the state's first source of biomass electric power generation opened for business. Operated by Santee Cooper, our state-owned electric utility, and distributed by Santee Cooper and its electric cooperative wholesale customers, this power plant collects methane gas at a landfill and uses it as "Green Power" fuel.

Spurred on by the success of this project and assistance from the SCEO in obtaining national Green Power certification for landfill gas projects in the state, Santee Cooper has three additional landfill-gas-to-energy projects under development, and will eventually bring its landfill gas energy production to 65 MW of power.

The Energy Office played a key role in the Palmetto/BMW LFGTE project in Spartanburg County. BMW receives the methane gas directly through an underground pipeline that runs 9.5 miles to the Palmetto Landfill. The BMW project generates 5 megawatts of power, in addition to process steam, and satisfies approximately 25 percent of the BMW facility's energy needs.

Working with a variety of partners and the federal Million Solar Roofs Initiative, we are well under way to achieving South Carolina's initial goal of 500 solar installations in the state.

Biomass is our greatest challenge and greatest opportunity. With federal funding assistance, the SCEO is partnering with the Departments of Commerce and Agriculture, the Forestry Commission, and private sector allies to produce a roadmap for maximizing our state's potential for biomass energy production.

We are analyzing the resource potential of feedstock for (1) direct combustion of biomass to produce process steam, or electricity (wood and wood waste, agricultural residues, construction and demolition debris, and solid waste); (2) methane production (animal manure, food waste, sewage, and solid waste); and (3) production of ethanol or bio-diesel fuel (corn, soybeans, used cooking oil, crop residues).

Next, we will determine the economics of and barriers to conversion of each potential biomass feedstock into an energy resource, analyze the means of overcoming barriers, develop a roadmap to implementation of projects identified as feasible, and provide an overview of the economic and environmental benefits to South Carolina from following the identified roadmap.

Our goals are ambitious, but it is our hope that renewable energy efforts will result in a healthier environment and more robust economy for South Carolina, while reducing our state's vulnerability to the turmoil of international politics and world markets.

What's Happening Around the State



The Spring 2005 Facilities Conference featuring ASCEM (Association of South Carolina Energy Managers), ASPACO (Association of State Planning and Construction Officials, and SCAPPA (South Carolina Association of Physical Plant Administrators) will be held March 5 – 8 at the Ocean Dunes- Sand Dunes Resort in Myrtle Beach. For more information, contact Julia Parris at (803)737-9825, 1-800-851-8899 or jparris@gs.sc.gov.



The South Carolina Energy Office will promote energy efficiency at its booths in various home shows across the state in March. We showcase ways you can save energy and money in your home. Come visit us at the following:

Southern Home and Garden Show
Palmetto Expo Center, Greenville
March 3-6, 2005
Booths 636-638

Carolina Classic Home and Garden Show
State Fairgrounds, Columbia
March 11-13, 2005
Booth 501 Ellison Building

Lowcountry Home and Outdoor Living Show
Charleston Area Convention Center, North Charleston
March 18 – 20, 2005
Booths 2114-2116



ConserFund Savings Continue to Grow

The South Carolina Energy Office (SCEO) continues to assist with financing for energy efficiency improvements in the public sector through its low-cost loan program, ConserFund. In August, SCEO closed a loan to Piedmont Technical College in the amount of \$483,280. Piedmont Tech is currently using these funds to implement energy efficiency improvements throughout its campus to implement the following energy conservation measures: 1) the replacement of heat pumps in three of its buildings, 2) the replacement of an HVAC system, and 3) the installation of lighting upgrades campus-wide. After implementation and completion of these projects, the college, along with taxpayers, will benefit from an estimated annual savings of \$114,000 in energy costs.

Since the inception of ConserFund in 1999, the loan portfolio total has grown to over \$8.7 million in financial assistance for the implementation of energy efficiency improvements statewide. The Piedmont Technical College project represents one of many energy saving projects for public higher education institutions, state agencies, school districts and local governments that ConserFund has helped to implement. With rising energy costs eating into agency budgets, public sector entities can take advantage of SCEO's loan program which currently offers a 3.25 percent annual interest rate.

For more information on ConserFund, contact Michael Hughes, mhughes@gs.sc.gov, or (803) 737-7177 at the South Carolina Energy Office.



Embarking on a New Energy Efficiency Endeavor



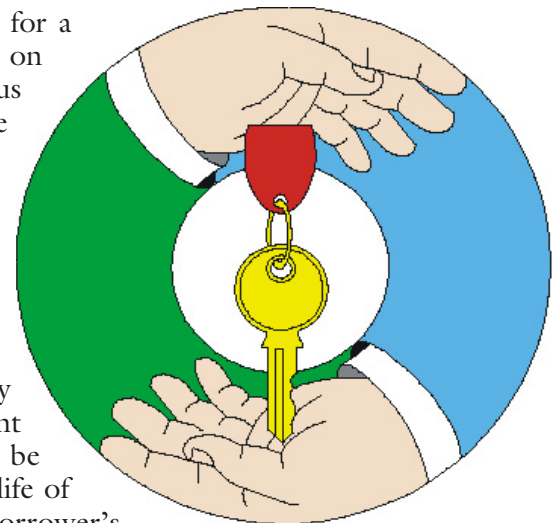
The South Carolina Energy Office (SCEO) has joined with York Technical College, Fannie Mae and others to develop an energy efficient mortgage (EEM) program for homebuyers and homeowners throughout the state.

SCEO is participating in and promoting a charrette and a series of workshops on energy efficient mortgages administered by the SC Energy Resource Center located at York Technical College. Other participants include Fannie Mae, York Tech, Wachovia, various utility companies, the Home Builders Association of South Carolina (HBA), and the South Carolina Association of Realtors. The purpose of the charrette and workshops is not only to establish the best plan for marketing and promoting the EEM product statewide, but to also promote and illustrate the benefit of energy saving technologies through its use.

The EEM promotes the new construction, renovation, and purchase of more energy efficient homes across America.

Benefits to the borrower with an EEM:

- A borrower can qualify for a larger mortgage amount based on the estimated energy savings plus the original qualifying income which can allow clients to qualify for a larger-sized home.
- By increasing borrowing power, the EEM allows borrowers to include the costs of energy improvements into the total mortgage amount.
- 100 percent of the energy improvements, up to 15 percent of the value of the home can be financed and paid for over the life of the mortgage, reserving the borrower's cash for more immediate moving costs.
- The value of the home is adjusted by the value of the energy efficiency improvements.



Benefits to the lender with an EEM:

- A lender can improve market position just by offering this new and innovative product to their clients.
- Approvals for those borrowers who may not have qualified for an inefficient home.
- Improved competitive position as a market leader in new product innovation.
- The use of automated loan underwriting systems to get an immediate decision for energy efficient mortgages just like for any other standard mortgage.

For more information on energy efficient mortgages, contact Michael Hughes, mhughes@gs.sc.gov, or (803) 737-7177 at the South Carolina Energy Office.

South Carolina Receives \$500,000 from California Utility

Following several months of negotiation, Southern California Edison has agreed to pay the State of South Carolina \$500,000 to compensate the state for the company's failure to ship a reactor pressure vessel for disposal at the Barnwell site. The reactor pressure vessel is the large steel envelope surrounding the nuclear reactor.

Three years ago, Southern California Edison agreed to pay South Carolina \$5.5 million for disposal of the reactor pressure vessel from the San Onofre nuclear plant. Of this amount, \$500,000 was paid to South Carolina at the time of the contract as a nonrefundable commitment fee. Another \$500,000 was deposited into an escrow account for use as partial pre-payment for disposal of the pressure vessel. After encountering a number of planning and logistical issues, Southern California Edison in March 2004 abandoned its attempts to ship the reactor pressure vessel to Barnwell. Shortly thereafter, they asked that the \$500,000 escrowed deposit money be returned.



A reactor pressure vessel from Maine, similar to the vessel that would have been received from California, awaits burial at the Barnwell site. After being emptied of internal structures, the vessel was filled with concrete and transported to South Carolina by barge. Concrete vaults in the background contain other types of radioactive waste.

The South Carolina Energy Office declined to return the escrow money to Southern California Edison, citing a provision in the disposal agreement that would transfer the money to the State of South Carolina in the event that Southern California Edison failed to ship the pressure vessel due to "force majeure," such as a natural disaster or other situation that could not have been foreseen by the company. Following extensive discussions during spring and summer of 2004, Southern California Edison finally conceded that they could not document that their failure was due to force majeure and agreed to release the funds to South Carolina.

The \$500,000 escrow amount will be deposited into state revenues. Under state law, money from disposal of radioactive waste at the Barnwell site is earmarked for public school construction and higher education scholarships. Total radioactive waste revenues for South Carolina last year were \$24.8 million.

[The Energy Connection](#)

ASCEM Recognizes Exemplary Energy Management

The Association of South Carolina Energy Managers (ASCEM) recently selected Winthrop University as the Energy Project of the Year and Mark Bellamy of Piedmont Technical College as the Energy Manager of the Year.

The awards were announced October 6, 2004, at the fall meeting of ASCEM at Williams-Brice Stadium in Columbia. More than 130 facilities energy managers from around the state gathered to hear presentations on water treatment, performance contracting, thermography, and environmental engineering/commissioning.

Energy Project of the Year

Building upon experience gained in Winthrop's successful first generation energy management program, Energy Manager Walter Hardin developed a Request for Proposals for a comprehensive Energy Management Savings program for the University. After receiving the proposals, Hardin negotiated an overall project cost of nearly \$5,247,000 with Ameresco Energy Services Company who was awarded the project to provide a variety of energy management services for the university.

The initial costs associated with the contract will be paid through loans from the South Carolina Energy Office's ConserFund program and from the Master Lease Plan of the State Treasurer's Office. Winthrop will re-pay a portion of the cost for the program through energy savings realized through the improved efficiencies. Energy savings are projected to be more than \$673,800 a year. This estimate could turn out to be a conservative, given Winthrop's experience with their first-generation energy management program which paid for itself in five years rather than the original projection of seven.

Continued on Page 5



The energy management team from Winthrop University includes, left to right, Chris Hodgdon, David Ayers, Dave Rentschler, Randy Groves, Linda Edwards, Walter Hardin, and Joe Goodman.

Filling Up with



The South Carolina Energy Office, in partnership with the Palmetto State Clean Fuels Coalition, promoted the first public E85 refueling station in Columbia in October, by holding an “E85 for 85 Cents” promotion. The Gervais Street Exxon station, located at the corner of Bull and Gervais Street, sold over 1,800 gallons of E85 fuel during the day-long event which featured visits from Interim Commissioner of Agriculture Hugh Weathers, Mayor Bob Coble, Representative James Smith, Interim Director of State Fleet Management Jeff McCormack and SCEO Director John Clark.

E85 is made of 85 percent ethanol fuel mixed with 15 percent gasoline. E85 is a cleaner burning, high octane and renewable blend of fuel. Pure ethanol is an alcohol made from renewable resources such as corn and other cereal grains, food and other beverage wastes, and forestry by-products. Purchasing ethanol helps support agricultural jobs, aids in our energy security, and helps reduce our dependence on foreign sources of oil. In addition, ethanol-blended fuel substantially reduces carbon monoxide and volatile organic compound emissions, which are precursors to ground-level ozone.

Vehicles that can use ethanol or E85 are called “Flexible Fuel Vehicles (FFVs). A few examples of FFVs are the 2002-2004 Ford Taurus, 2003-2005 Chevrolet Tahoe, and the 2003-2005 Chrysler Sebring Sedan. For a complete listing of FFVs, visit the National Ethanol Vehicle Association’s website at www.e85fuel.com, which lists over 40 models of cars and light trucks. FFVs are usually the same price as conventional model vehicles, and now some manufacturers offer the flexible fuel capacity as an option. Since E85 is a cleaner burning fuel, oil changes are needed less frequently, which is an additional benefit.



SC Interim Commissioner of Agriculture Hugh Weathers and Jaime Hughes, State President of the South Carolina Future Farmers of America, discuss the impact South Carolina crops can have on reducing ground level ozone.

The Budget and Control Board’s State Fleet Management currently has 778 FFV vehicles in its fleet, and, statewide there are 1,784 FFVs in state government. In order to further the use of E85, the SC Energy Office and the Palmetto State Clean Fuels Coalition are working to open accessibility to four more stations in Columbia and four in Greenville by Spring 2005. The sites in Columbia will be located near state agencies for easy refueling. Locations are set to open at I-77 near Shop Road, I-26 at Broad River Road, I-20 at Augusta Road and I-20 off Clemson Road. For more information, contact Chantal Fryer at the SC Energy Office at 803-734-0922 or at cfryer@gs.sc.gov, or visit SCEO’s website at www.energy.sc.gov.

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Energy Manager of the Year

Mark Bellamy, the 2004 Energy Manager of the Year, serves as a Master Trades Craftsman for Piedmont Technical College (PTC), and one of his primary responsibilities is managing PTC’s utility consumption.

Bellamy carefully analyzes every utility bill set, consisting of 63 monthly invoices. If he sees abnormalities in the energy sums (dollars or kBtu), he immediately notes those discrepancies, and Bellamy personally contacts one of the eight utility companies that serve Piedmont Tech. Last year, many taxpayer dollars were credited back to the college because of his care in analyzing the monthly invoices and statement charges of the college’s seven campuses.

Because of Bellamy’s intense monitoring and “hawk eye” analysis, last year’s utility costs decreased by nearly seven percent in terms of dollars and more than 37 percent in kBtu’s. Through the combined efforts of Mark Bellamy and Piedmont Technical College, the College was awarded \$18,256 under SCEO’s “Rewards for Higher Education Energy Efficiency Project” (RHEEEP) program this year.



Left to right: Dale Wilson, Director of Facilities Plant, Piedmont Technical College, Mark Bellamy, Master Trades Craftsman, Piedmont Technical College, and Jeff Hinson, ASCEM Chairman.

Public Sector Entities Sign On to Monitor Savings

The South Carolina Energy Office developed South Carolina SAVE\$ (Schools and Agencies Verify Energy Dollars) in 1994 to assist schools, colleges and agencies in controlling their energy costs. SAVE\$ participants initially received FASER energy accounting software and training to track, analyze, and print reports on energy and other utilities. The pc-based software has been an excellent tool for many years. However, it is being phased out in favor of new web-based energy accounting technology. SCEO, through the State Chief Information Office, requested proposals for a statewide web-based energy accounting system to be made available to all school districts, state agencies, and public colleges. Utility Direct (UD) by School Dude, is a web-based utility management and reporting solution built specifically for educational institutions.

UD tracks and monitors bills for electric, fuel oil, propane, water, natural gas, sewer, trash/waste, telephone and more, and records billing periods, consumption, demand, cost, additional charges, taxes and more. It enables simple comparison and analysis of billing data (including 15-point checking with the Savings Sniffer) and helps improve efficiency by identifying utility waste, cost problems, billing errors and savings opportunities.

5 Colleges Gain \$75,775 In RHEEEP Funds

The facilities departments at five public universities and colleges will receive \$75,775 in RHEEEP grants because of completed energy cost savings projects in FY2004/2005. RHEEEP (Rewards for Higher Education Energy Efficiency Projects) is a SC Energy Office grant program whereby facilities departments at public colleges and universities may earn rewards ranging from \$1,000 to \$20,000 for implementing and reporting energy cost saving projects. The reward funds must be spent on items that will improve energy management and efficiency of facilities. To date, SCEO has granted \$218,531 to 12 institutions for energy efficiency projects.

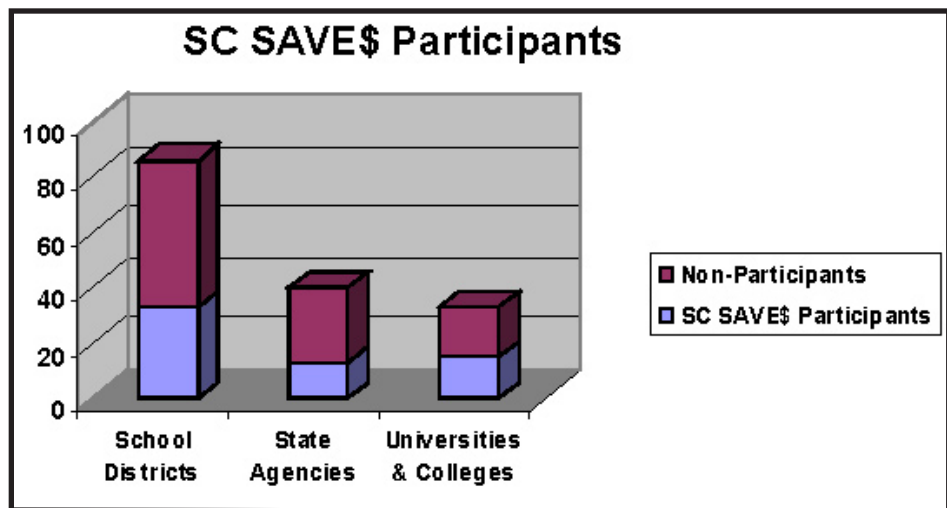
Greenville Technical College received an award in the amount of \$16,589 to improve electrical utility rate schedules and contracts on five of their buildings. The annual energy cost savings from this project is \$16,589.

Medical University of South Carolina received an award in the amount of \$10,292 and will benefit from the installation of a 75 HP variable frequency drive for cooling tower fans at Rutledge Towers. The annual energy cost savings from this project is \$10,292.

Piedmont Technical College's award amount for \$8,894 was based on completed projects that included the installation of occupancy sensors throughout the main campus and off-campus Centers, the modification of the energy management system at the Laurens County Higher Education Center to inhibit boiler operation when the ambient temperature exceeds 65 degrees Fahrenheit, and the addition of the Conference Center to their Backtalk Energy Management System. The annual energy cost savings from these projects is \$8,894.

Trident Technical College received \$20,000 for applied lighting retrofits at Main, Berkeley, and Palmer Campuses and HVAC upgrades in Buildings 500 and 510, Main Campus. The annual cost savings from these projects is \$32,033.

University of South Carolina award of \$20,000 was based on the replacement of a 28-year old boiler and its associated deaerator tank in the West Energy Plant with a new high energy efficiency boiler. The annual cost savings from this project is \$144,739.



Energy Saving Tips

Whether choosing energy efficient products, auditing your home, adding energy smart plans when building a new home or saving on transportation costs, the following link will provide the tools and information you need to help save energy and money at home and on the road this winter.

www.energy.gov

Anderson County Harbors Fewer Idling Trucks

The grand opening of South Carolina's first Truck Stop Electrification site was conducted October, 2004, by the SC Energy Office, in cooperation with the SC Department of Health and Environmental Control and IdleAire Technologies. The event was held at the Anderson Auto Truck Plaza in Anderson County, off Interstate 85 at Highway 81.

Truck Stop Electrification (TSE) eliminates or greatly reduces the need for prolonged idling by long haul trucks. It does this by providing electrical "shore" power for cab heating and air conditioning, by powering in-cab equipment such as TVs or engine block heaters, and powering trailer refrigeration units (reefers) carried by about 18 percent of long haul trucks. It saves fuel, saves money, improves our national energy security, reduces the emissions of harmful air pollutants, improves the lifestyle and work environment of truck drivers, and helps reduce noise and odors associated with idling.

A U.S. Department of Energy grant was combined with private funding to install IdleAire Technologies Corporation's Truck Stop Electrification, at 159 truck parking spaces along the I-85 corridor in South Carolina, North Carolina, and Georgia. This \$1.5 million multi-state grant, made to the South Carolina Energy Office, was



IdleAire provides individual electrical service for each parking space. This has traditionally been referred to as "truck stop electrification (TSE)." A heating, cooling and ventilation unit sits above each parking space. The unit is connected to the Service Delivery Module by means of a flexible, reinforced, concentric hose, which also houses the delivery mechanisms for the communications and entertainment packages. All TSE services, including temperature, fan speed and all other service selections, are delivered to and independently controlled by each individual driver in the truck cab via the Service Delivery Module.

the only project out of 11 applications to be awarded nationwide.

Each IdleAire TSE location is expected to remove over 1,600 metric tons of emissions annually, including over 33 metric tons of nitrogen oxides and nearly one metric ton of particulate matter. Fuel saved at the three locations is expected to be nearly 2.4 million gallons annually.

Your Opinion Matters to Us

In an effort to help us improve The Energy Connection, we would appreciate your participation in a brief survey. Please take a minute to answer the following questions, then fax to Reneé Daggerhart of SCEO at (803) 737-9846.

1. How informative do you find The Energy Connection newsletter?

- ☐ Very informative
- ☐ Somewhat informative
- ☐ Not very informative
- ☐ Not at all informative

2. Have you used any of SCEO's services/programs you read about in The Energy Connection?

- ☐ Yes
- ☐ No

2. How would you rate the following features of the newsletter?

Amount of information

- ☐ Just right
- ☐ Not enough
- ☐ Too much

Level of language

- ☐ Just right
- ☐ Too simple
- ☐ Too complex

Layout

- ☐ Just right
- ☐ Too simple
- ☐ Too hard to follow

Do you receive The Energy Connection in hard copy or electronically?

- ☐ Hard copy
- ☐ Electronically

4. How can we make The Energy Connection newsletter more useful? Please be as specific as possible.

What is Performance Contracting?

Across the country, energy performance contracts (EPC) are offered by energy service companies (ESCOs) as a practical way for public sector entities to obtain and finance energy-saving projects for their facilities. A performance contract consists of an agreement between the ESCO and the organization to provide energy retrofits and improve the energy efficiency and environment of public building(s) with the costs for the project paid from savings.

In South Carolina, EPCs are being used by school districts, colleges and universities, and some state agencies to tackle energy efficiency projects because they provide a good alternative in an environment of shrinking budgets, older buildings and equipment, and high energy costs. Among recent EPCs, public institutions like USC, Winthrop, and Cherokee County School District are taking advantage of this tool. SCEO is currently working with State Engineer's Office to determine how to best develop a model performance contract program for the state.

Common EPC projects include: lighting, control retrofits, variable speed drives and motor replacements, and HVAC upgrades. Once implemented, these types of energy saving projects, especially lighting, will pay for themselves over time. Shorter payback projects like these are often used to help pay for projects with a longer payback. For example, a lighting project with a five-year payback could offset an HVAC project with a ten-year payback, or even a project which has no payback, such as a new roof or security system.

The following are eight components of energy performance contracting:

- 1) an energy study to identify opportunities,
- 2) engineering and design of projects,

- 3) financing,
- 4) construction and installation,
- 5) training,
- 6) operation and maintenance to assure continuance of savings,
- 7) monitoring utility bills and savings and
- 8) guarantee of savings.

EPCs offer many benefits and are an excellent solution if you have facility retrofit needs but limited funds. Performance contracting is a turn-key design/build program that includes energy analysis design and engineering, construction, ongoing operation and management (O&M) services, training, guaranteed savings, and modest upfront costs.

However, there are also some pitfalls to be aware of before engaging in performance contracting. With EPCs, organizations may feel a loss of control over the project and associated costs. Also, there may be hidden or high costs that were not presented on the front end of the project, and organizations should ensure that there is someone on staff or a consultant who has specialized technical knowledge about energy performance contracts and energy management systems.

Moreover, a good RFP and contract is critical on the front end for a successful performance contract throughout the process. The contract with the ESCO must include a thorough technical review of energy audits, demonstrate realistic costs, and escalation assumptions. Keys to a successful energy performance contract include: an appropriate monitoring and verification (M&V) plan, a proper baseline, reasonable handling of adjustments to baseline, energy conservation measures that are practical and workable, savings projections that are realistic, achievable and verifiable, and a fair contract. Without M&V, there is no hard and fast way to assess the

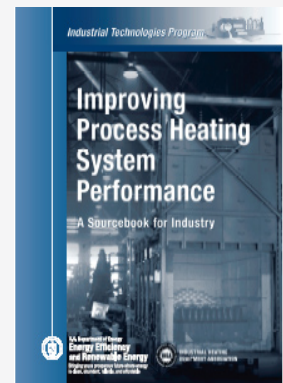
energy performance of the installed systems. Without a proper baseline, energy costs are always shifting, and there is nothing to compare original energy costs with new ones associated with the performance contract.

Overall, the benefits of performance contracting are many and help organizations achieve better performance from their buildings and energy management systems. Among the benefits of EPCs are: providing a reduction in energy and utility expenses; replacement of outdated and inefficient equipment; use of trained energy engineers to design the energy measures to be installed; assistance to agencies to maintain the newly installed measures; and a guarantee by the contractor that the measures will perform as promised.

Look for updates on SCEO's website and *The Energy Connection* newsletter.

Improving Process Heating System Performance: A Sourcebook for Industry provides process heating system stakeholders with a reference describing basic process heating processes and equipment, and outlines opportunities for energy and performance improvements.

For your free copy of this 71-page sourcebook, contact Renée Daggerhart at 1-800-851-8899, (803) 737-8035 or rdaggerhart@gs.sc.gov.



Greater Energy Efficiency Results in Savings for SC Public Entities

South Carolina public facilities spent \$185.5 million on energy in FY 2003, but saved \$4.4 million in energy costs compared to five years ago as a result of greater energy efficiency. In June, the South Carolina Energy Office published its twelfth annual Energy Use in South Carolina's Public Facilities report, available at SCEO's website. Summarizing energy consumption and cost data for public school districts, state agencies and public colleges for fiscal year 2003, this report provides useful comparisons between state agencies, school districts and public higher education institutions' energy consumption. The summary data table below provides a breakdown of some of the most statistically relevant energy data for each category included in the report.

Fiscal Year 2003 Summary Data

Institutions	Total Energy Count (in millions)	Avg. \$/Sq. Ft.	Avg. Btu/Sq. Ft.	Most Energy efficient in \$/Sq. Ft.
School Districts (85)	\$96.1	\$0.92	46.02	Anderson S.D. 3
State Agencies (32)	\$36.3	\$1.49	109.89	S.C. Military Dept.
Colleges with Housing (13)	\$44.0	\$1.29	118.84	Francis Marion University and Clemson University
Colleges without Housing (20)	\$8.9	\$1.27	75.19	Williamsburg Technical College
Totals	\$185.5	\$1.08	68.55	

The data in this report assists agency leaders, school administrators and public facility managers in identifying which public facilities are the highest and lowest in energy consumption and serves as a tool which will help not only track energy use and costs. It also establishes a historical trend of energy use. When high energy use patterns are identified, the Energy Office works with those institutions to address problems and provide technical assistance through its Rebuild South Carolina and ConserFund loan programs.

The South Carolina Energy Office, in conjunction with SchoolDude.com, currently provides a web-based energy accounting system to public sector entities in South Carolina. This system, called Utility Direct, enables public facility managers to monitor and analyze their utility expenditures online in order to identify problems and savings opportunities. It also simplifies preparation of the required annual energy consumption reports, since the Energy Office can access the utility data online and analyze it for use in the report.

The Energy Use in South Carolina's Public Facilities publication and accompanying database is one of the most comprehensive and detailed reports of public facility energy use data in the nation. If you would like further information about this report, please contact Frank Boyd at (803)737-9848, fboyd@gs.sc.gov, or visit the South Carolina Energy Office website at www.energy.sc.gov.

2005 Fuel Economy Guide for Vehicles Available

The US Environmental Protection Agency (EPA) and the US Department of Energy (DOE) have released the 2005 Fuel Economy Guide to help consumers make well-informed choices when purchasing a new vehicle.

This free guide is a valuable resource for anyone who is thinking about buying a new vehicle. The guide lists estimates provided by the EPA of miles per gallon for each vehicle available for the new model year.

The vehicles listed in the guide are divided into four classes of cars: large, midsize, subcompact, and compact; two classes of light-duty trucks: small pickups and standard pickups; and three classes of special-purpose vehicles: minivans, small SUVs, and large SUVs.

“Fuel economy is an important factor for new car buyers,” said South Carolina Energy Office Director John Clark. “As technology continues to improve, South Carolinians can choose fuel-efficient cars without compromising comfort or style, and this is good for both the environment and the budget.

“Fuel efficiency makes economic sense while improving the nation’s energy security,” outgoing Secretary of Energy Spencer Abraham said. “The 2005 Fuel Economy Guide and our companion Web site, www.fueleconomy.gov, can help consumers make wise purchasing decisions.”

By using the Fuel Economy Guide, consumers can estimate the average yearly fuel cost for any vehicle. However, the consumer should be aware that the actual mileage when driving a vehicle may differ considerably from the predicted mileage.

To get a copy of the 2005 Fuel Economy Guide, contact Reneé Daggerhart of the SC Energy Office at 1-800-851-8899, or at rdaggerhart@gs.sc.gov. To view the 2005 Fuel Economy Guide, go to www.fueleconomy.gov/feg/FEG2005.pdf.

2005 Model Year Fuel Economy Leaders by rank, manufacturer, model and city/highway MPG

1. Honda Insight
hybrid-electric, manual, 61/66
2. Toyota Prius
hybrid-electric, 60/51
3. Honda Insight
hybrid-electric, automatic, 57/56
4. Honda Civic Hybrid
automatic, lean burn,* 48/47
5. Honda Civic Hybrid
automatic, 47/48
6. Honda Civic Hybrid
manual, lean burn, 46/51
7. Honda Civic Hybrid
manual, 45/51
8. Volkswagen New Beetle/Golf/Jetta
diesel, manual, 38/46
9. Volkswagen Jetta Wagon
diesel, manual, 36/47
10. Honda Civic
manual, 36/44

*Hybrids use lean burn technology to mix more air with fuel as it burns, improving fuel economy.

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State Budget and Control Board

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Grady L. Patterson
State Treasurer

Richard Eckstrom
Comptroller General

Hugh K. Leatherman, Sr.
Chairman, Senate Finance Committee

Robert W. Harrell, Jr.
Chairman, House Ways and Means
Committee

Frank W. Fusco
Executive Director